

ADLER (L. H.) jr.

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NOCTURNA.*

*By* LEWIS H. ADLER, Jr., M. D.

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## NORMAL LIQUID ERGOT IN ENURESIS NOCTURNA.

BY LEWIS H. ADLER, JR., M. D.\*

The subject of enuresis has from time to time occupied the columns of our medical journals. Various remedial agencies have had their strong advocates; the most prominent remedies espoused have been atropine, ergot, electricity, and the sound.

Atropine is a most potent therapeutic agent in the disease. Of this fact, there cannot be much doubt. Dr. Simon Baruch, of New York, read a paper before the Pædiatric Section of the New York Academy of Medicine, Dec. 26th, 1888, in which he strongly advocated the value of this drug in enuresis. This paper was subsequently published in the Archives of Pædiatrics, April, 1889. Later on, during the same year, Dr. Wm. Perry Watson, of Jersey City, N. J., read a paper before the Section on Diseases of Children, American Medical Association, Newport, R. I., 1889, and published *loc. cit.*, October, 1889, in which he cited most favorable results from atropine in 30 cases, unselected. The remedy was used by him as follows:

R Atropiæ sulph., grs. ii.  
Aq. distillatæ,  $\frac{3}{4}$  ii.

M.

Of which one drop for each year of the age of the child was given at 4 and 7 o'clock in the evening. It was found by actual counting that the ordinary medicine-dropper held eighty drops of this liquid.

Baruch usually gave sufficient atropia in the afternoon at 4, and at bedtime, to *insure dilatation of the pupil*. One sixty-fourth of a grain for children from 6 to 10, and double that quantity for children up to 14, administered at

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the hours stated, usually sufficed. If the pupils are widely dilated when the second dose is due, it is omitted, thus poisonous effects are usually prevented.

With all that can be said in favor of the alkaloid of belladonna, there are two strong objections to its indiscriminate use in these cases—that is, providing it is not the only remedy in the range of materia medica which can accomplish the same desired result, and it is the purpose of this paper to prove otherwise. The first objection to the drug is, that it is a powerful poison, and to attain the object desired in enuresis, it must be exhibited in as large doses as the system will bear, and the impression thus made should be maintained for weeks.\* Such being the case, if a non-toxic or milder poisonous remedy can be found as efficient as atropine, the fact that belladonna and its alkaloid are violent poisons, is sufficient to give the new or less dangerous remedy the preference.

The second objection to the continuous use of atropine in enuresis, lies in the fact, that its secondary effects are exceedingly lasting and unpleasant, not to say injurious. In the first place, to produce its sought for object in the disease under consideration, it must be administered, in full therapeutic doses; one result of which is, to produce a febrile condition of the patient, dryness of the throat and fauces, and a general disturbance of the system. Not only so, but the mydriasis which accompanies either the internal or external use of the drug, is so disagreeable and continuous—without which result the drug is worthless in enuresis,†—that a drug free from this effect must, if it be as good a remedy in enuresis, supercede atropine.

In twenty-four cases of enuresis, which came

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\* Wood's Therapeutics, Materia Medica, and Toxicology 5th ed., p. 267.

† Baruch, *loc. cit.*, p. 241.



to the Dispensary of the Episcopal Hospital, during September, October, and November, 1889, I was enabled, through the kindness of my chief, Dr. W. T. Van Pelt, to treat all of the patients with normal liquid ergot (P., D. & Co.'s). The result of such treatment is attested in the following citation of cases:

CASE 1.—Percy H., aged five, has had nocturnal and diurnal enuresis since birth. Prepuce and meatus normal. September 5, 1889, was given 20 drops of ergot, *t. i. d.*, and mother was instructed to see that child was made to empty its bladder at regular intervals, especially just before going to bed at night (advice which was given to all subsequent patients; the importance of which, was strongly urged).

September 9, 1886.—Mother reported that child had steadily improved, wetting the bed but once or twice since taking the medicine, with no diurnal incontinence,

Saw the child two weeks later. Neither nocturnal nor diurnal symptoms of the trouble had returned. Told to bring the child back again if any return of the disease occurred, and to cease for the present further medication. As child did not return, it is safe to predict a cure in the case.

CASE 2.—Harry K., aged six, has always had nocturnal enuresis. Prepuce elongated and tight, but was retractible with slight force. Applied for treatment September 6, 1889; was given half-drachm doses of ergot, three times daily. Saw the patient again after several days; mother reported a remission of former trouble, child now only suffering from incontinence of urine every second or third day. The dose was now increased to a teaspoonful, since which time, until his final discharge (one month later), he had no recurrence of trouble.

CASE 3.—Mary S., æt. 12, has always had nocturnal enuresis, and for the last three years diurnal also. On September 10, 1889, she was

ordered one drachm of ergot, *t. i. d.*, and did not wet her bed that night. Has not since had any difficulty in retaining her urine either during the night or day.

CASE 4.—Katie S., æt. 13, has always had incontinence of urine at night. September 13, 1889, was placed upon similar treatment to that ordered for Case 3. Marked improvement at the end of a week and in less than three weeks was discharged from further treatment. As in all these cases, patient was ordered to return at once, if any return of trouble came on.

CASE 5.—Robt. L., æt. 7, has had enuresis since an attack of scarlet fever when three years old. Prepuce somewhat elongated and meatus inflamed. He was given 30 drops of ergot, *t. i. d.*, for one week with apparent cessation of the attacks during the day, but none whatever of the nocturnal symptoms. The dose was now doubled at night time only, and in two weeks the patient was discharged from further observation.

CASE 6.—Mamie H., aged five, has always had this affliction. Placed upon the usual treatment of ergot, 30 drops *t. i. d.* This was on Sept. 23, 1889. Saw patient again one week later. Mother reports that she has not wet the bed since the second day of taking the medicine.

CASE 7.—Eva F., aged three; Case 8, Thos. F. G., aged three; and Case 9, Rich. N., aged four; applied for treatment for nocturnal enuresis. They were each put upon 30 drops of ergot *t. i. d.*, and in less than 10 days, their trouble had entirely ceased. At the end of a couple of weeks more they passed from further observation, not having had any further return of the trouble.

CASE 10.—Annie D., aged seven; Case 11, Wm. F., aged 5; Case 12, Mary C., æt. seven; and Case 13, Thos. K., æt. seven; have always had

nocturnal enuresis. They were put upon the usual treatment, ergot, 30 drops, *t. i. d.*, and at the end of a week had had but one or two recurrences each, of former attacks. The dose was now doubled at night time and at next report—one week later—they had had no return of trouble.

CASE 14.—Chas. McG., æt. 12; and Case 15, Wm. M., æt. 15; each had suffered with nocturnal enuresis since childhood. They were placed upon drachm doses of ergot, *t. i. d.*, with some slight improvement; one week later, the dose at night time was doubled, with marked improvement in Case 14. Case 15, did not do so well, and his medicine was increased to two drachms, *t. i. d.*, with a drachm at bedtime. At the end of two weeks both patients had been free from any return of former symptoms, but were now becoming nauseated by the ergot. The dose in each case was reduced to a drachm after dinner and before going to bed. This was kept up for two weeks longer, and as no return of former attacks had become manifest, patients were discharged.

CASE 16.—Jas. B., æt. 4, has always had nocturnal enuresis. Prepuce elongated and retracted with difficulty, ordered parts kept clean and retracted daily. Ergot 20 drops, *t. i. d.* with the result of going one or two nights a week without a recurrence of the symptoms. Ergot increased 20 drops more at bedtime with improvement. This latter quantity was doubled, and finally, increased to a drachm. A month after treatment had not wet bed for a week, an unprecedented occurrence. Saw patient once a week for three weeks, and in that time had wet bed but once. Ten days later patient was discharged with positive injunctions to come back again should trouble return.

CASE 17.—May H., age five, had suffered with incontinence of urine during the day and



night, for several years, causing her clothing to be wet and attended by the disagreeable odors consequent. October 14, 1889, she was put upon 20 drops of ergot at the usual stated intervals, with the result that she was cured so far as the diurnal symptoms were concerned, and would frequently go several nights without the nocturnal occurrence; then they would resume for a night, possibly several, and again disappear. At the beginning of November, the drug was given at night as well as during the daytime, and in a few days was increased to a drachm at bedtime; since which time she had not wet the bed, and by the middle of November she was discharged and the medicine stopped altogether.

CASE 18, Rose D., æt. 9; Case 19, Agnes R., æt. 4; Case 20, Lena S., æt. 5; Case 21, Lillie Y., æt. 5; and Case 22, Clement T., æt. 4; all were discharged from treatment after from two to three weeks' observation. They were each placed upon ergot (P. D. & Co.'s normal liquid), in doses of from 20 drops to a drachm three times per diem. A cure was manifest in from 48 hours to a week, in all the cases.

CASE 23, Annie B., æt. 11, and Case 24, Viola D., æt. 8 years; had each to take 2 drachms of the ergot, *t. i. d.*, before a pronounced effect was had upon the enuresis. After Case 23 was discharged, apparently cured, she returned to the hospital in about ten days, saying that the trouble had returned. It was strongly suspected, and apparently confirmed upon examination, that this patient was addicted to self-abuse. Her mother was questioned, and told to keep a watch as to the girl's conduct. She left, and did not return again to the dispensary. Case 24 was cured, having had no return of trouble for two weeks previous to discharge from further treatment.

To sum up, then, the treatment and results in these cases, we find that—

The dose of the drug was 20 drops to 2 fluid drachms, *t. i. d.* in water, the latter dose being required in three chronic cases, one of which took the increased dose at night time only.

Nine cases were benefited by taking the drug about bedtime, and it would be a good rule to administer the remedy as a routine treatment at that time, in all cases.

One case only was not cured (Case 23). She was greatly benefited, however.

Several of the cases were somewhat nauseated by the medicine, but by decreasing the dose and diluting freely with water, all were able to keep on with treatment until it was desirable to cease the same.

From the experience had in these cases, it is safe to say that—

1. Ergot is a much less dangerous drug to use than atropine or belladonna (especially for children), and therefore, when equally efficacious, more desirable to prescribe.

2. It is not so liable to produce mydriasis as is belladonna, and when it does so the effect is not so lasting, making it therefore a more congenial preparation to the patient.

3. Ergot is not apt to produce so profound a disturbance upon the system as belladonna.

4. A reliable preparation of ergot will, if used as advised herein, accomplish as good results in cases suitable for medication, as any drug in the Pharmacopœia.

5. When ergot produces nausea, proper dilution with water will obviate the trouble in most cases.

6. The dose of the ergot should be 20 drops *t. i. d.* for a child upwards of five years old, and from 30 drops to a drachm or two, after meals, for over that age. In most cases, an extra dose taken just before bedtime, of even a larger quantity than is administered during the day, will aid materially in the treatment of this disorder.



